C-Band, 6 GHz, and RDOF

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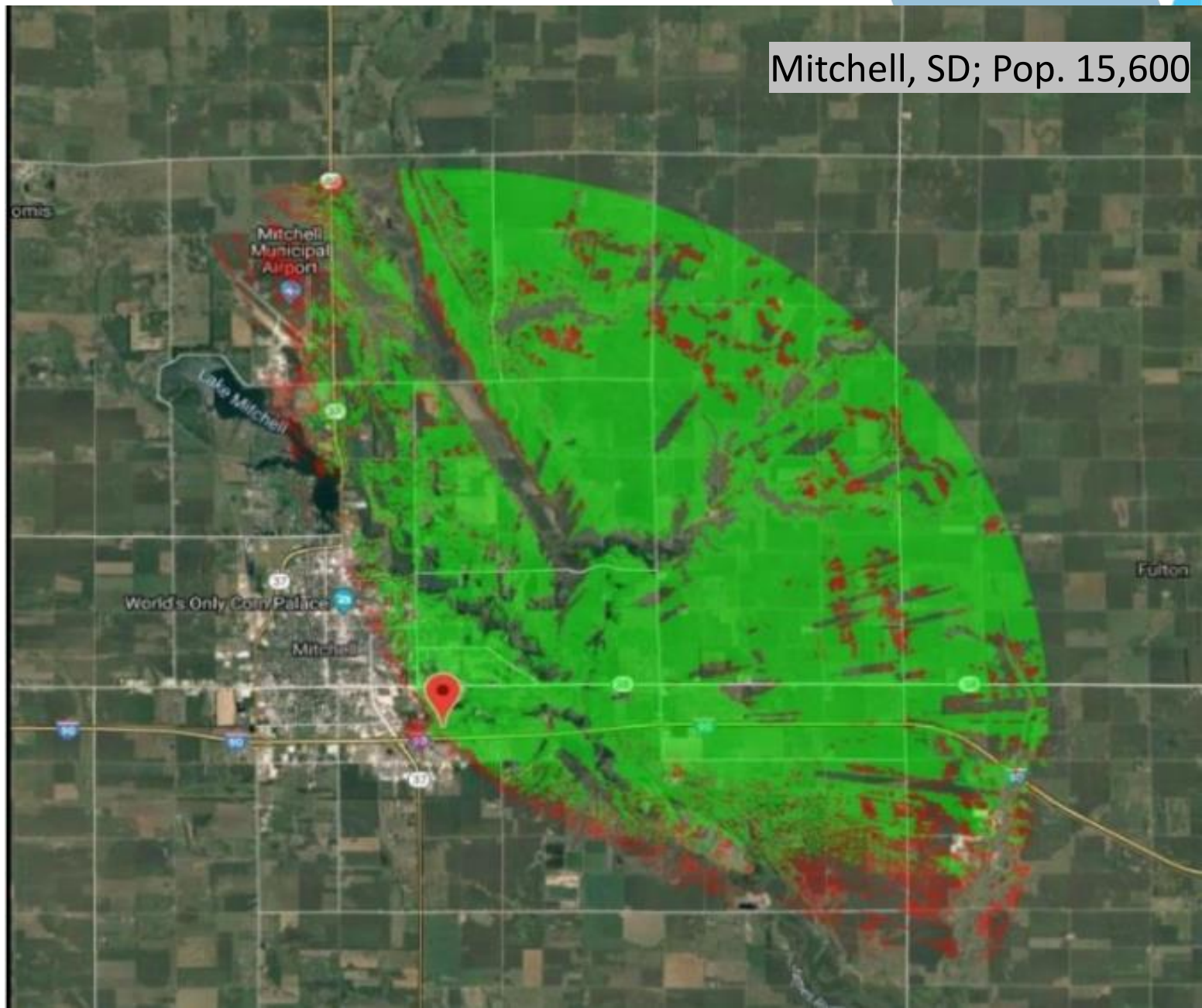
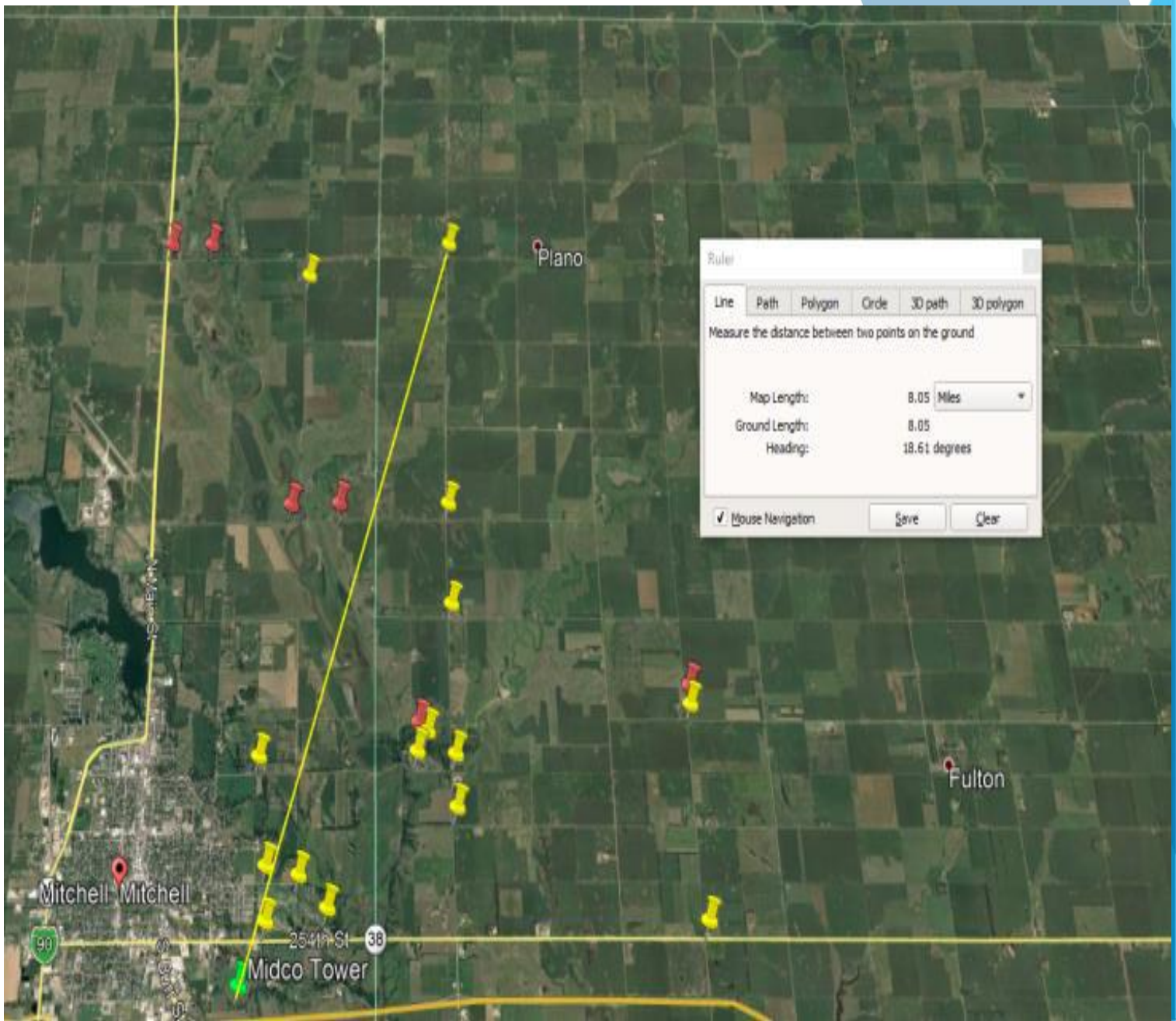
C-Band Testing

- One E-NodeB sector in the 3700-3800 MHz
- 200 foot deployment
- 46 dBm access point
- Covered over 38 miles



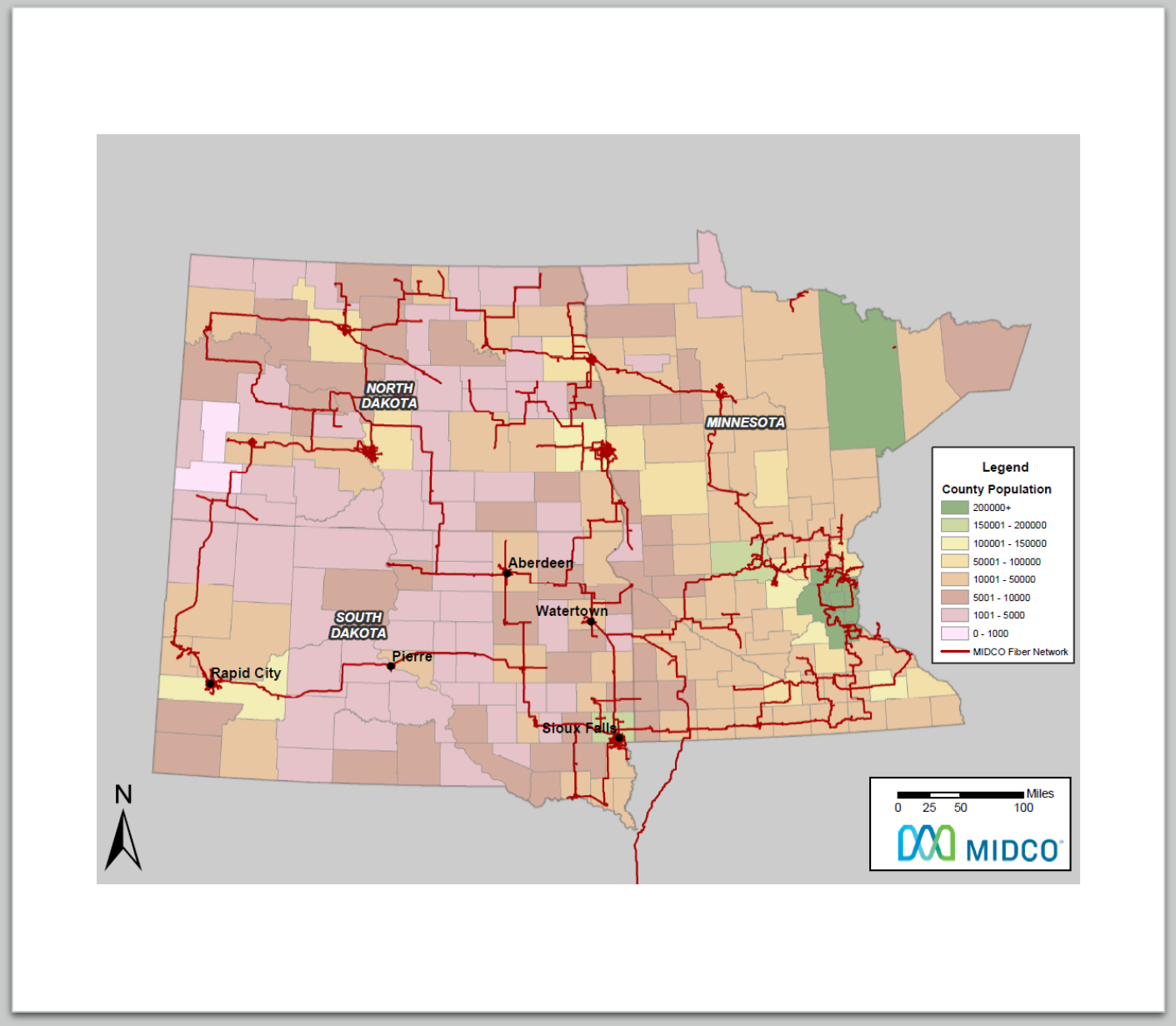
High-Speed

- 100/20 Mbps possible where propagation indicated service
- Testing CPEs capable of 200/40 Mbps
- Carrier aggregation on the tower side with 5 GHz, CBRS, etc.



Rural America

- Reed Study estimates 78% of rural areas will be eligible
- 10 km away from satellite receive stations; few & far between
- If auctioned, then a public auction with rules and safeguards to serve rural America without an overlay auction



6 GHz is a Game Changer

- Wi-Fi 6 assists with precision agriculture for reliable data uploading.
- New LTE provides speeds of over 200/40 Mbps with sub-30 milliseconds latency.
- The additional 850 MHz of spectrum in the U-NII-5 and U-NII-7 bands enables Fixed 5G and Gig+ speeds.
- Higher power possible with Automated Frequency Coordination.

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Rural America Needs Higher Deployment Heights

- 30m proposed height is not realistic for cement grain elevators
- Need at least 90m deployment height in rural America

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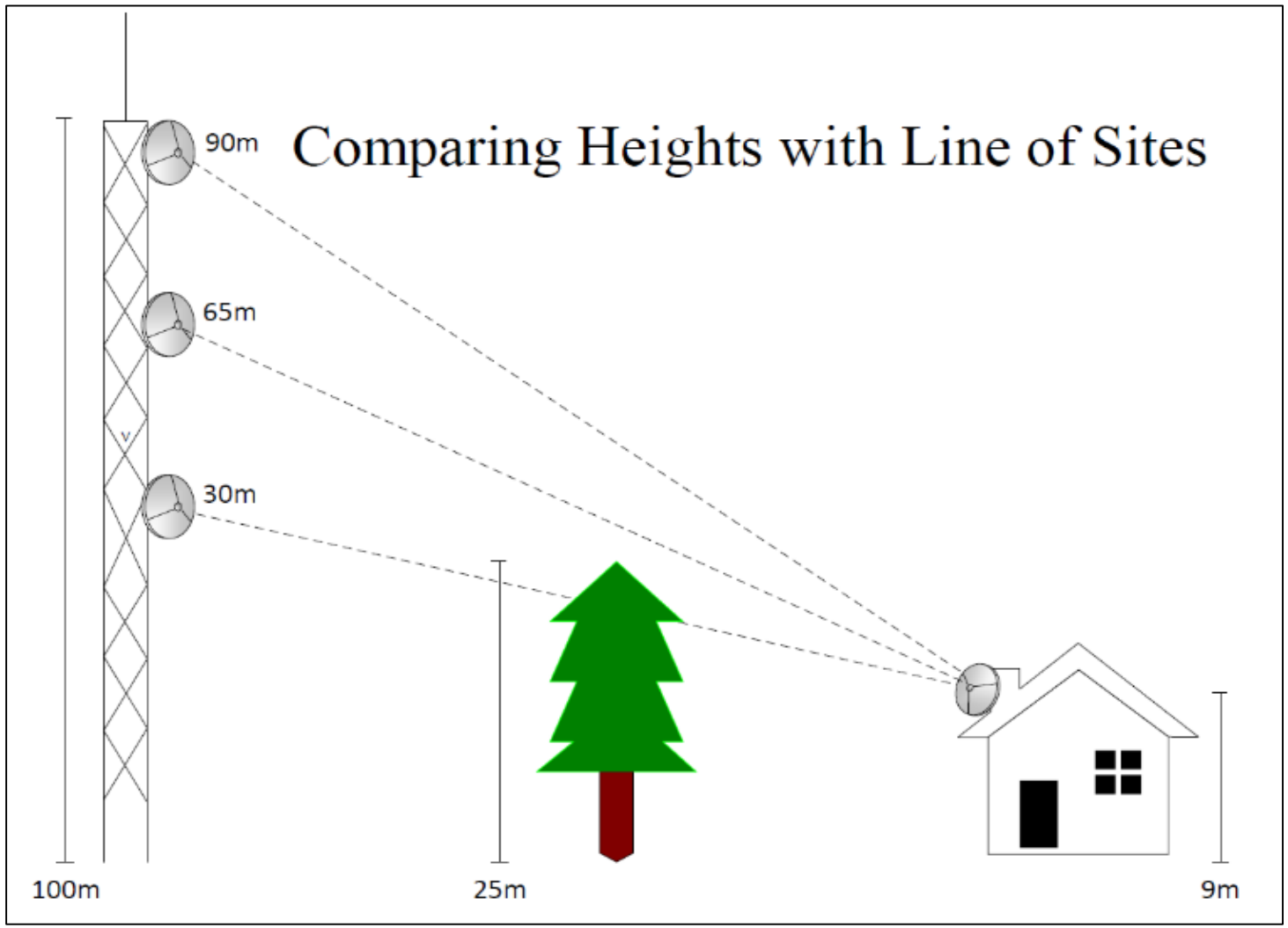
Higher Height Means Better Line of Site



- Increases spectral efficiency
- Can better protect incumbents

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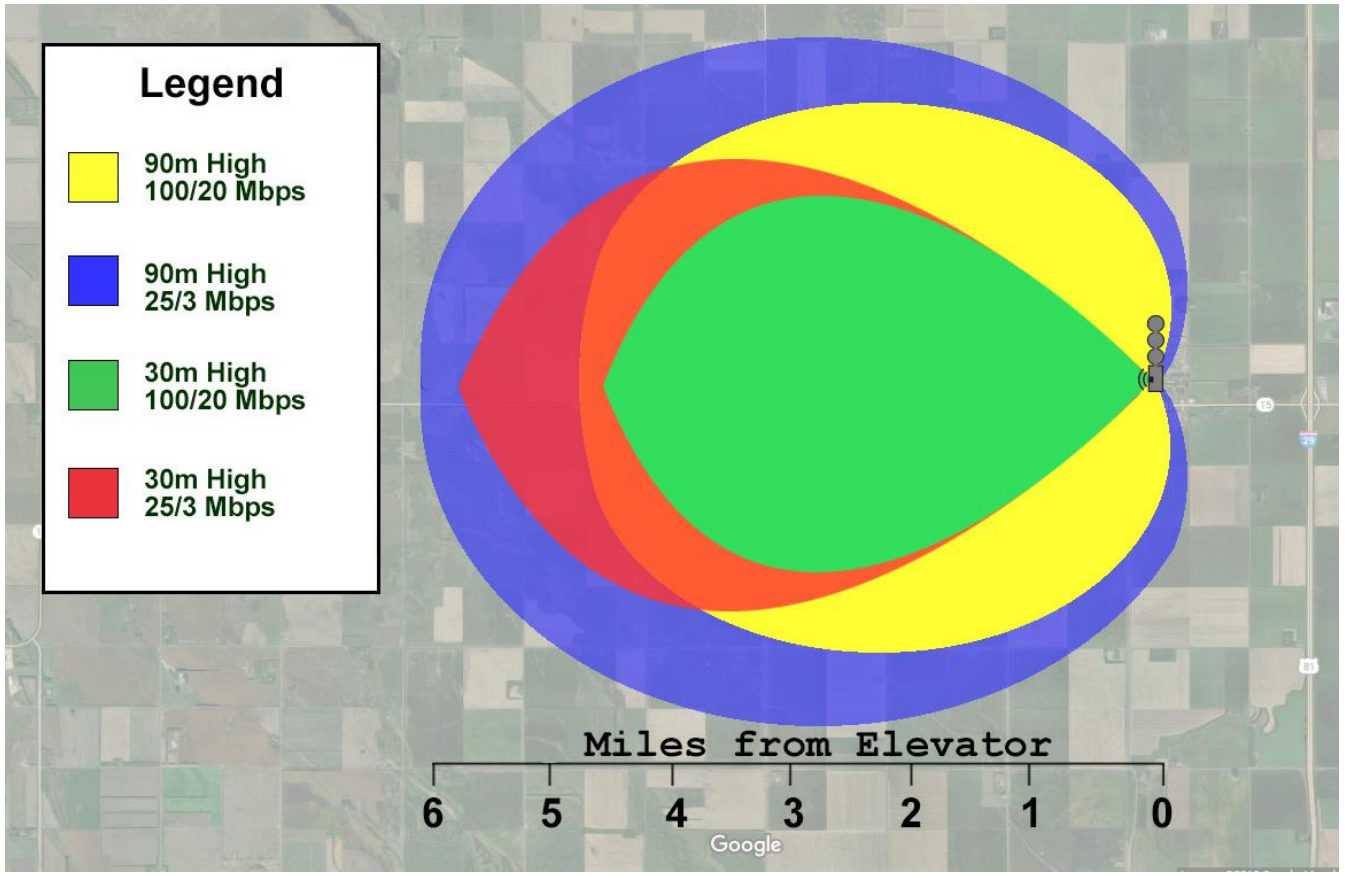
Thompson, ND

- Increasing EIRP for CPEs to at least 36 dBm, ***increases service area by about 1/3 of the area***.
- 30-meter deployment would cover 31 sq. miles.
- 90-meter deployment would cover 44 sq. miles.
- 90-meter deployment ***increases coverage ability by more than 40%*.**



Increasing Heights & Power Means More Homes Passed

Area is unserviceable at 30m or even 65m

Area becomes serviceable at 90m

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RDOF

- Fixed wireless provides high-speed service at significantly reduced cost in rural, remote areas
- No subscribership requirement
- Add 50/5 Mbps tier

Performance Tier	Speed	Monthly Usage Allowance	Weight
Minimum	≥ 25/3 Mbps	≥ 150 GB or U.S. median, whichever is higher	50
Baseline	***≥ 50/5 Mbps***	***≥ 150 GB or U.S. median, whichever is higher***	***30***
Above Baseline	≥ 100/20 Mbps	≥ 2 TB or U.S. median, whichever is higher	15
Gigabit	≥ 1 Gbps/500 Mbps	≥ 2 TB or U.S. median, whichever is higher	0